

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number
WO 2004/062458 A3

(51) International Patent Classification⁷: **A61F 2/06**

(21) International Application Number:
PCT/EP2004/000248

(22) International Filing Date: 15 January 2004 (15.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0300915.6 15 January 2003 (15.01.2003) GB
0327306.7 24 November 2003 (24.11.2003) GB

(71) Applicant (for all designated States except US): AN-
GIOMED GMBH & CO. MEDIZINTECHNIK KG
[DE/DE]; Wachhausstrasse 6, 76227 Karlsruhe (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DORN, Jürgen
[DE/DE]; Küstriner Weg 2, 68809 Neulussheim (DE).
WUEBBELING, Martin [DE/DE]; Ifflandstrasse 16,
68161 Mannheim (DE). WALTER, Beate [DE/DE];
Wiesenstrasse 24, 76297 Stutensee (DE).

(74) Agents: HOFFMANN EITLE et al.; Arabellastrasse 4,
81925 München (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
6 January 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TRANS-LUMINAL SURGICAL DEVICE



(57) Abstract: A device for trans-luminal delivery of a self-expanding stent or other surgical device and which is designed for rapid exchange over a guidewire has a guidewire lumen that adjacent its proximal exit port lies side-by-side with the line of the shaft of the device. A sleeve which surrounds and confines the stent has a proximal end that is shaped around the guidewire exit port to show in profile a shape reminiscent of the nose of a dolphin. In preferred embodiments, the sleeve also has a tapered distal tip that is withdrawn proximally over the length of the stent to release it, progressively, from its distal end. The configuration delivers simplicity of design, enhanced performance and reliability in use.

WO 2004/062458 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/000248

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61F2/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/002020 A (SALVIAC LIMITED) 9 January 2003 (2003-01-09) page 14, line 26 - page 21, line 2; figures 1-3j -----	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

3 November 2004

Date of mailing of the international search report

22/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Smith, C

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/000248

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 03002020	A	09-01-2003	
		CA 2449961 A1	09-01-2003
		CA 2449981 A1	09-01-2003
		EP 1399084 A1	24-03-2004
		EP 1408873 A1	21-04-2004
		EP 1399085 A1	24-03-2004
		EP 1399095 A1	24-03-2004
		WO 03002018 A2	09-01-2003
		WO 03002019 A2	09-01-2003
		WO 03002020 A2	09-01-2003
		WO 03002033 A1	09-01-2003
		IE 20020529 A1	30-12-2002
		IE 20020530 A1	05-03-2003
		IE 20020532 A1	05-03-2003
		IE 20020533 A1	28-05-2003
		IE 20020535 A1	28-05-2003
		US 2003097095 A1	22-05-2003
		US 2003093110 A1	15-05-2003
		US 2003125751 A1	03-07-2003
		US 2003109886 A1	12-06-2003
		US 2003093106 A1	15-05-2003